MERCHANDISING SUPPLEMENT
Electricity on the Farm

Vol. 3 SEPTEMBER, 1930 No. 9

A New Feature

Beginning in the October issue, Merchandising Supplement will have a new department edited by Truman E. Hienton, Associate in Agricultural Engineering at Purdue University. This feature might well be termed a Rural Electric Salesman's Forum.

One particular phase of rural electrification will be treated each month—in October it will be *Feed Grinding.* Each article will be an accurate and comprehensive summary of available data and proven practices, indispensable information for all sales and service representatives who are contacting the rural trade.

Mr. Hienton is one of the foremost authorities in the field of rural electrification, having had wide experience both in rural electrification project work and farm electric service research work.

Rural Merchandising Methods

of the Nebraska Power Co.

"Guarantee of Revenue" System Most Effective Method; Experiences in Selling Equipment

BY G. A. WALKER*

IT IS obvious that the paramount problem in farm electrification is that of inducing the farm customer to make broad use of the kilowatt hours available to him in order to obtain a service commensurate with the cost and in order that the Power Company may secure sufficient revenue to make this service stand on its own feet.

Experience has proven that with the equipment available today and a reasonable farm rate, as most of the companies now have, the farmer that uses service broadly is well satisfied. Equipment such as electric refrigerators, ranges, water heaters, washing machines, vacuum cleaners, battery chargers, pumping systems, milking machines, grinders, electric breeders, etc., is admirably fitted for utilization on the farm.

The Question

The question then is, how to induce the farmer to use this equipment.

We have tried out several methods, some of which we have retained and others of which we have abandoned. We are convinced that one of the most promising methods of attaining this objective is what we call our "guarantee of revenue" system.

Before a farm line is built we ask the farmer to sign a contract, agreeing to guarantee us a revenue (where the investment per customer exceeds $350) of 20 per cent of the investment per year. With the conditions with which we are confronted in our territory, it appears that we cannot hope to secure an average of over 2 1-2 to 3 farm customers per mile of line, which means an average investment of $600 or more per farm customer and a guaranteed revenue of $120 or more per year.

Pioneer Work Required

Admittedly it takes some pioneering to sell the farmers on the $10 to $15 per month value of electric service, but we have now had sufficient experience to feel quite sanguine as to the ultimate outcome. Most of our new farm customers are guarantee customers and guarantee generally ranges from $120 to $130 per year. Last year we connected over 100 guarantee customers to our lines and this year we expect to connect 200 or more.

Under our farm rate, the farmer receives 140 kilowatt hours for $10 and nearly 300 kilowatt hours for $15. Naturally he does not like to pay for current that he does not use; and there is a definite natural tendency to equip himself so as to use this current.

Logically, then, our farm men spend a considerable amount of time in selling prospective farm customers on the idea that electric service is worth from $10 to $15 per month. In working up proposed lines, the friendship and con-

*The author presented this paper before the commercial section, Mid-West Division N. E. L. A. Convention, Des Moines, Ia., April 24, 1930.

fidence of the prospective customers are developed and by the time the signature is secured on the contract and the line is constructed, the farmer is generally ready to purchase one or more major items of equipment and these are followed rapidly by others.

The guarantee of revenue system does not, of course, take care of the non-guarantee customers; although in localities where guarantee lines have been built, we have noted considerable influence on non-guarantee customers. Once you get a farmer well equipped, he is nearly always an ardent booster of the service and his neighbors and friends generally hear about it, all of which is helpful in the long run.

An analysis of our farm customers for the last year shows an average monthly consumption by guarantee customers of 125 kilowatt hours and by non-guarantee customers of 70 kilowatt hours. Further, the average consumption per nonguarantee customer for the first year of service is only 45 kilowatt hours per month as against 108 kilowatt hours for the guarantee customer. These figures reflect very decisively the desirability of the guarantee customer. The amount of merchandise sold to the farm customer bears a distinct relation to the amount of kilowatt hours that he uses.

Last year we sold approximately an average of $60 worth of merchandise to our farm customers. We do not have a definite division as to the amount sold non-guarantee customers as against guarantee customers, but it is approximately 1 to 2; and the influence of the guarantee system on the non-guarantee customer is apparent in the localities where guarantee lines have been constructed.

Merchandising Methods

We have tried several schemes for selling merchandise to farm customers and have made many changes and no doubt will make many more in the future. We have tried to merchandise our farmers exclusively with specially trained farm men; and we have tried merchandising them through our regular organization, that is, by our regular salesmen, local managers, etc. Our present set-up is more or less a combination of the two.

As indicated, our specially trained farm men devote the major part of their time to developing guarantee farm lines. The results obtained in having farm men merchandise farms exclusively did not justify the expense. While soliciting new farm lines, during the period of construction and in some instances a short time afterwards, these men are making every effort to sell merchandise, but after the lines are built and in operation the farm man turns over all prospects to the local manager or to other salesmen in our regular commercial organization to follow up. Thereafter we depend entirely on the local manager or regular sales force to sell merchandise, except in special cases such as grinder prospects or others involving special knowledge or training.

Stimulate Purchases

We utilize every practical effective means of stimulating the purchase of electrical equipment by the farmers.

For instance, during the month of April we have campaigned the electric brooder and by the end of the month will have put out something over 100 brooders on approximately 300 farms. To stimulate this campaign, we made introductory references to the desirability of electric brooders in letters sent out in previous months. We ran a special advertisement on the back cover of *Electricity on the Farm* and early this month we sent out to each customer a special brooder letter, with an enclosed pamphlet of testimonials by last year's users and a brooder circular. Our local managers, merchandise salesmen and farm men have followed the matter aggressively. Many of the brooders were put out on trial and in almost every instance they were purchased. We have demonstrated the brood-

ers at every opportunity and we have followed up to see that they were operated intelligently. Almost every purchaser became an ardent booster for electric brooding and many brooders have been sold to neighbors and friends of the satisfied user.

We aim to concentrate on one particular item each month. Next month we will sell electric water heaters and have had built by the Crystal Refrigerator Company of Fremont for this purpose a 15-gallon one-kilowatt heater equipped with a Westinghouse "Clix-on" temperature regulator. The water heater is finished in an attractive gray lacquer. It is portable; not being intended to be connected to plumbing. The supply of water is poured in at the top and the hot water is drained out through a faucet. These heaters will sell for $49.50 installed, and we anticipate considerable interest in them judging from preliminary contacts.

Another month we will sell refrigerators. We will feature a special farm refrigerator made up with the requirements of the farmer especially in view. Another month we will campaign electric cooking; another month electric grinding, etc.

Demonstrations Effective

In addition to sending out special letters, manufacturers circulars and advertising on the back cover of *"Electricity on the Farm,"* we do a considerable amount of demonstrating. Demonstrations prove effective in arousing the interest of neighborhoods. We have cooking demonstrations, grinding demonstrations, brooder demonstrations, etc., to which all customers in the particular community involved are invited.

"Electricity on the Farm" is not one of the least important means used in stimulating the interest of farmers in electrical equipment. We distribute it each month to each one of our farm customers and also to a list of prospective customers. From what checking up we have done, we are convinced that this magazine is read by our customers and is very effective in helping to sell merchandise.

We have a farm exhibit at each one of our County Fairs with men in attendance who are well versed in the needs of the farmers. During the Fair exhibits, different equipment is demonstrated, pamphlets are given out and every effort is made to stimulate interest in farm electrification.

We maintain contact with the county agents in the counties in which we operate, and in almost every instance this contact has been very pleasant, as well as profitable. Our aims in farm electrification parallel very closely the objectives of the county agents.

Recently we entertained by a trip through our power plant and luncheon at noon 125 farmers and their wives who were making a tour of various industries in the county under the auspices of the county agent. The reaction was quite favorable. We are arranging to do the same thing with Four-R Clubs in some of the counties in which we operate.

Not long ago, we initiated what we call "farm tours" from territories where we are projecting lines. We invite the farmers to make a tour with us. We start out early in the morning and visit various farms where electricity is broadly used. The owners of the farms visited are of course proud of their equipment and they are invariably ardent boosters of electric service. We arrange a luncheon at noon and dinner in the evening, generally winding up the day by an inspection tour of our power station. These trips have been very effective in stimulating interest in a broad use of electricity on the farm.

The Discount Method

Another method that has been used in several instances is the offering of a 10 per cent discount on all merchandise sold when the farmer purchases such equipment as will qualify him on an "electrified farm" basis. The electrified farm equipment comprises several of the major appliances and in-

cludes the electric range, electric water heater, electric refrigerator, eletric water system, portable motor, grinder, brooder and where milking is done, the milking machine. We have approximately 15 of these electrified farms on our lines scattered throughout the territory. An effort has been made to locate one within a reasonable distance of each part of our territory.

We co-operate in every practical way with dealers and manufacturers' representatives who are making sales efforts in our territory.

We cooperate with the agricultural departments of the universities and utilize their findings in many instances to advantage.

In one of our counties the Extension Agent recently had a series of Extension Meetings. Farmers of the county were divided into groups and each group met once a month for a series of months. We prepared a number of slides featuring electric equipment for farm usage and one of these slides was shown at each of the meetings. One hundred showings were made for a cost of $25.

We have found it well worth while to be liberal in putting equipment out on trial, as in nearly all instances, a sale is made.

Time Payment Plan

Also we have found it beneficial to make such terms as meet the convenience of the purchaser in the sale of equipment when the credit is good. Farm revenue does not, of course, come in monthly. Frequently it is inconvenient for the customer to pay until he has sold his corn, small grain, or hogs. In such instances we take note leases for such time as is desired, charging the farmer 6 per cent on deferred payments.

We have periodical meetings of our farm men and the others of our organization who sell to our farm customers, when different equipment and policies are discussed and where experiences are exchanged. We find these meetings quite beneficial, as when one man has been particularly successful in selling a certain type of equipment, these meetings are a medium through which his enthusiasm is spread to others in the organization. These meetings also help to stimulate a sense of friendly rivalry between the different individuals and districts.

Equipment on Display

We, of course, try to have on display at our various stores the ordinary types of farm equipment and appliances. In this way it is easier for the farmer to select such types of equipment as best suit his needs.

Some time ago we adopted the policy of making periodical calls on our farm customers, but an analysis of the results obtained failed to justify the expense of making the calls. Many of the "non-guarantee" customers that have been on our lines for some time are very difficult to build up. We undertook this by systematic calls as above indicated. We have come to the conclusion that building up these customers is going to be a long, slow job and that it will have to be done by *"Electricity on the Farm,"* monthly letters, demonstrations, publicity, etc., rather than through the direct call system. This type of farmer seems to feel that $5 or $6 a month is all that he can afford to pay for electric service and it is a difficult job indeed to convince him otherwise within a reasonable cost.

Our experience in this respect has helped to convince us that the "guaranteed revenue" method of connecting farm customers is the proper method to utilize in solving the farm electrification problem in our territory. It gives us a basis that we can satisfactorily and successfully build on with the result that the farmer is well satisfied with the service he receives and its cost and that the company can put the lines on a self sustaining basis which, of course, must be done if the farm electrification problem is to be properly solved. We feel that on this basis it is just a question of a few years until practically every farm within a reasonable reach of our lines will be connected.

What Electrical Equipment Is the Farmer Buying?

By R. BOONSTRA*

RECENTLY Mr. R. R. Smith, assigned to farm electrification work in one of our districts, made a survey in a truck farming area of 302 farmers to find out exactly what progress the farmers were making in the application of electrical equipment. He not only found out what equipment they were buying, but also what equipment they would like to buy. The farmers were well pleased with what they had.

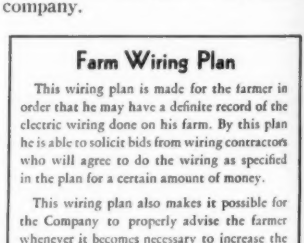
The list of equipment is as follows:

		Percentage
Flat irons	270	90%
Washing machines	194	64
Electric Water Systems, Pumps, Pump Jacks	152	50
Radios	136	45
Vacuum cleaners	51	17
Toasters	36	12
Ranges	28	9.3
Refrigerators	19	6.2
Table stoves	15	5
Milking machines, (electric)	12	4
Waffle irons	6	2
5 h. p. motors	10	3.5
Fans	6	2
Sewing machines	5	2
Curling irons	3	1
Space heaters	3	1
Percolators	2	.7
Incubators	2	.7
Heating pads	2	.7
Brooders	1	.3
Water heaters	1	.3

When asked the question as to what they were going to buy next, the answer was unanimous—"Electric Refrigerator"; next—"Electric Range." Facts such as presented above enable the sales and development departments of the utility companies to spend their time working with the farmers who as yet have made very little use of the electricity they have available on their premises. Without knowing those facts, men like Mr. Smith must necessarily waste a great deal of their time and costly transportation following sales and advertising campaigns on equipment which is already used by the largest percentage of farmers. For example—the flat iron—where formerly Mr. Smith was told in advance by the general office as to what appliances the sales campaigns were to feature, he now himself, through his knowledge of facts in the field, makes suggestions to the advertising and sales department of the General Office as to the kind and type of help which he would like to sell this electric equipment to the farmer.

Selling Methods Improved

By our continuously improving upon methods of selling, the farmer will as a result be able to buy better electrical equipment at cheaper prices because of the decrease in the cost of selling through making better use of time and advertising material on the part of the utility company.


Farm Wiring Plan
This wiring plan is made for the farmer in order that he may have a definite record of the electric wiring done on his farm. By this plan he is able to solicit bids from wiring contractors who will agree to do the wiring as specified in the plan for a certain amount of money.
This wiring plan also makes it possible for the Company to properly advise the farmer whenever it becomes necessary to increase the capacity of his wiring.
This plan is made in duplicate — so that one copy can be retained by the farmer for his own use and the other can be retained in the Company's farm electrification files.
PUBLIC SERVICE COMPANY OF NORTHERN ILLINOIS

Reverse Side of Wiring Plan

* Agricultural Engineer, Public Service Company of Northern Illinois, Chicago.

Wiring Plan on Farm of _____

Address _____ **Telephone** _____ **Date** _____

Yard lighting means convenience and safety

An electric cleaner plugs into any outlet

Cardice cooling and refrigeration system with electricity

Good light for reading and a radio for entertainment provided by electricity

An electric chair heater can be moved from room to room to furnish extra warmth

Hot water for cows are automatically heated by electricity

Fresh water at all times pumped electrically

An electric water pitcher pump fills the silo quickly

In the separation of milk, a motor saves time and effort

The electric motor grinds feed automatically

Cows are easily milked electrically

Electricity runs a sanitary sewage compartment for milk

An electric brooder mothers baby chicks

Electricity is the only hired help which asks you for more work and less pay

1. Light Service _____ Amp. 8. Service Pipe Size _____
2. Power Switch _____ Amp. 9. Wire in Service Pipe No. _____ Size _____
3. Cooking Switch _____ Amp. 10. Lighting Wire Size in Home _____ in Barn _____
4. Light Wires between Home and Barn No. _____ Size _____
5. Power Wires between Home and Barn No. _____ Size _____
6. Cooking Wires in Home — Size _____
7. Private Property Poles — No. _____ Height _____ Dia. _____

Note: This is a wiring plan and not a wiring contract.

Location	Ceiling Light	Wall Light	Wall Switch	Wall Outlet	Location	Ceiling Light	Wall Ex-tet	Wall Outlet	Service Outlets
Porch - Front					Corn Barn				
Porch - Rear					Horse Barn				
Vestibule					Hay Mow				
Lower Hall					Feed Room				
Stairway & Hall					Feed Room				
Parlor					Harness Room				
Living Room					Work Shop				
Dining Room					Dairy Room				
Kitchen					Pump House				
Summer Kitchen					Silo				
Pantry					Garage				
Basement					Tool Shed				
Bathroom					Corn Crib				
Bedroom					Granary				
Bedroom					Hog House				
Bedroom					Chicken House				
Bedroom					Yard Lights				
Laundry					Brooder House				
Clothes Closets					Straw Barn				
Fruit Cellar									

Special Instructions:

Salesman (Name) _____

Wiring Contractor who did work _____

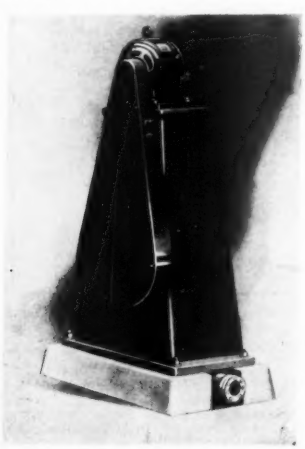
Farm Wiring Plan of the Public Service Company of Northern Illinois

The illustrations shown above are those contained in the wiring plan employed by the Public Service Company of Northern Illinois. The data recorded thereon enables power company salesmen serving a specified district to know just what equipment Mr. Farmer is apt to be next in line to purchase. It is also designed through illustrations to further the use of electricity and will give the electrical contractor just the data he wishes should further extension of the original wiring system be desired.

Mr. Smith is quite often called upon to make installations such as the replacing of a gasoline engine with a 1-HP. motor, as shown in Figure 1, which pumps the water by means of an ordinary pump jack to a 1,000-gallon storage tank in the farm home; to run silo filling demonstrations, as shown in Fig. 2, to prove to the farmers that the 5-HP. motor can do the work of a gasoline tractor. Figure 3 shows a vacuum cleaner in operation on a small dairy farm. A short time ago vacuum cleaning of cattle was laughed at by nearly every dairy farmer. It seems that the idea of its being practical, even in small herds, is now rapidly spreading throughout the country.

New Pump Announced

The Luitwieler Pumping Engine Company of Rochester, N. Y., has announced the introduction of a new electrically driven pump for rural use. It has a capacity up to 1,500 gallons per hour, for a depth up to 300 feet. It is built with all enclosed chain drive, direct connected, electric drive. The illustration herewith shows the complete unit.



The New Luitwieler Pump unit for Rural Service

A. S. A. E. Rural Electric Division Committees Announced

J. E. Waggoner, of the Delco-Light Company of Rochester, N. Y., who is Chairman of the Rural Electric Division of the American Society of Agricultural Engineers, has just announced the following list of committees of the Division which have been formally appointed and will function during the Society year, 1930-1931: Committee on Electric Motors—F. L. Zink, chairman; G. A. Rietz, Ralph Prater, W. D. Hemker.

Committee on Line Construction Wiring and Equipment Installation: Richard Boonstra, chairman; J. F. McCarthy, E. R. Meacham, Douglas Dow.

Committee on Refrigeration Equipment: W. T. Ackerman, chairman; R. R. Parks, T. E. Hienton, R. E. Hayman, P. T. Montfort.

Committee on Household Equipment: Miriam Rapp, chairman; Eloise Davison, E. W. Lehmann, M. P. Brunig, Greta Gray.

George Kable, of the National Project in Maryland, is vice-chairman of the Rural Electric Division of the Society.

Electric Helpers for the Farm

Under the above title the General Electric Company of Schenectady, N. Y., have issued a twenty-page booklet. In the introduction the following statement is made:

"Already, more than 220 different uses of electricity on the farm have been counted. It is not the purpose of this booklet to list equipment for all of these uses. In many instances, electricity plays only a part, although a large part, sharing with existing farm equipment the task of lightening chores, conserving time, or saving money. This is particularly true of those jobs where a motor has supplanted hand power as the driving force."

Included in the electrical equipment described are the following: wiring systems, refrigerators, water heaters, household appliances, window ventilating and other fans, motors, milk coolers, soldering irons, ultra-violet light, etc.

3000 Farmers Are Guests of Detroit Edison Co.

Attend Picnic at Albert Miller Farm Near Monroe; Educational and Recreational Program

MORE than 3,000 farmers attended the Third Annual Picnic at the Albert Miller Farm, eight miles east of Monroe, given by the Detroit Edison Company on Aug. 6. The farmers started coming about 1 P. M., and from that time until 7 P. M. they were streaming in from all directions. It was necessary to have three state motorcycle officers on hand to handle the parking of cars along the roadway and in the barnyard.

Most of the electrical appliances exhibited were loaned by different farmers and a few were homemade, among them a drinking fountain warmer, an electric brooder, etc. Early in the afternoon Prof. H. J. Gallagher of Michigan State College and John Flessner of the Detroit Edison Co. gave demonstrations and short talks about the value of each piece of apparatus at which a large number of farmers attended. While this was going on Miss Evelyn Turner of the Michigan State College talked to the ladies on cooking, washing and ironing in a large tent well provided with amplifiers so that her talk could be heard all over the grounds.

A Multitude of Cars in the Miller Farm Parking Lot

Michigan State College had two demonstration trucks. One truck contained a Myers water system, Perfection milking machine, and a few other farm devices of interest to the men, while the second truck was fitted up like a farm kitchen. A Frigidaire refrigerator, Electrochef range, Ironrite ironer, Prima washing machine and an Eureka vacuum cleaner were the principal articles exhibited.

The following articles were exhibited around the grounds. In the Michigan State College tent a ventilator, made by the American Blower Co. of Detroit, and another made by the Ilg Electric Ventilating Co. of Chicago were on display. An experimental seed corn

Model Farm and Power Plant Exhibit at the Albert Miller Farm

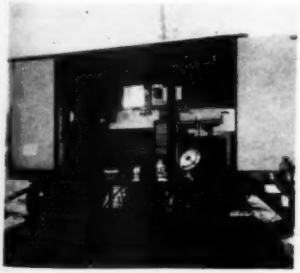
Inspection of Farm Equipment by the Visitors

and fruit dryer was also exhibited in the tent, and the Detroit Edison Co. had a small model electrified farm, together with power house and high lines, etc., on exhibit in this same tent. Outside F. E. Myers & Bros. had a water system as well as a pump jack set up. Howell Motors had a 5-HP. portable motor connected to a McCormick Deering silo filler. A portable elevator manufactured by the Portable Elevator Manufacturing Co., Bloomington, Ill., was on display. Ideal feed mill, Stover Engine & Mfg. Co., Freeport, Ill., Blue Ribbon Milker, a very old Burton Page milker loaned by one of the farmers, an old Prater mill, an old IXL corn sheller made by the International Harvester Co., a Rowell feed grinder, and a Hinman milker. Many farmers seemed to be quite interested in the Kelvinator milk cooler in use permanently on the Albert Miller Farm.

Entertainment for All

Games and races, various contests, etc., were provided for the children and also the grown-ups.

During the evening several addreses were made in the big tent. A representtaive of the Michigan State College, Prof. Gallagher, the County Agent for that district, John Flessner, and Douglas Dow made short talks. Mr. Dow mentioned that the first picnic at the Albert Miller Farm three years ago was attended by 200 farmers, the picnic last year by 600, and more than 3,000 attended this picnic. Mr. Dow also mentioned that fully 40 per cen tof the farms in the territory served by the Detroit Edison Co. were electrified.



The Michigan State College Kitchen Trailer Was at the Miller Farm, Too

Trade Literature

Pemco Duplex Electric Water Heaters: A bulletin issued by the Philadelphia Electrical & Mfg. Co., of Philadelphia, Pa., describing Pemco electric water heaters. This bulletin, which is known as No. 43, supersedes No. 42, and shows new sizes which have been added to the company's line, as well as several new types of heaters.

New Automatic Toaster: A four page bulletin issued by the Edison General Electric Appliance Co., Inc., of Chicago, Ill., describing the new Hotpoint automatic toaster, and the new automatic Hotpoint waffle iron.

Convention Dates

GREAT LAKES DIVISION, NATIONAL ELECTRIC LIGHT ASSOCIATION, annual convention, French Lick, Ind., Sept. 25, 26, 27.

NATIONAL ASSOCIATION OF FARM EQUIPMENT MANUFACTURERS, annual convention, Congress Hotel, Chicago, Ill., Oct. 8-10. H. J. Sameit, Secretary, 608 S. Dearborn St., Chicago, Ill.

NATIONAL DAIRY SHOW, annual convention, St. Louis, Mo., Oct. 11-19.

RURAL BUSINESS COMMITTEE, Empire State Gas & Electric Association, quarterly meeting, Rochester, N. Y., Oct. 15. C. B. Chapin, Sec., Grand Central Terminal Bldg., New York City.

NORTHEASTERN SECTION, AMERICAN SOCIETY AGRICULTURAL ENGINEERS, Rochester, N. Y., Oct. 16, 17, 18.

RURAL ELECTRIFICATION SHORT COURSE. Purdue University, Lafayette, Ind., Oct. 23, 24, 25. T. E. Hienton, Director.

YES, MY BOY

City Boy (gazing at a windmill): "Gee, Uncle Tom, that's some electric fan you've got out there cooling the cows."

Rietz Promoted by General Electric.

George Rietz, District Specialist on Rural Electrification in the Chicago office of the General Electric Co., has been transferred to the Schenectady headquarters office and placed in charge of G-E Rural Electrification activities. Mr. Rietz was born and raised in the rural sections of South Dakota, spending a great deal of his boyhood on farms in that section. He took the Smith-Hughes agricultural course in high school and was graduated in electrical engineering from South Dakota State College. During 1925 he was field engineer for the state of South Dakota on the South Dakota rural electrification project, and on the installation of equipment in the College farm buildings.

G. A. RIETZ

In 1926 he went with the General Electric Company as a graduate electrical engineer, and took tests and advanced engineering training. In 1927 he instructed the first course on rural electrification conducted by the General Electric Company. On March 1st, 1928, he went to Chicago as a District Specialist on Rural Electrification. From March, 1928, to July, 1930, he spent full time on rural electrification in sixteen of the middle western states, being a General Electric farm representative, cooperating with the State project, colleges, central stations, farm machinery manufacturers, etc., on farm electrification problems. On July 1st. 1930, he moved to the General office of the General Electric Company at Schenectady, in charge of the Rural Electrification Section. The function of this section is to coordinate the General Electric Company's activities in Rural Electrification.

Combier Joins Electromaster

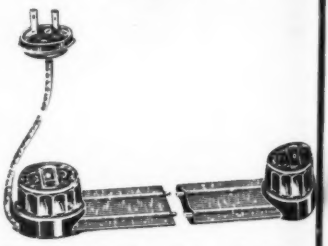
Electromaster, Incorporated, of Detroit, Michigan, manufacturers of the Electrochef cooking machine, announced July 1st the association of Mr. Frederick P. Combier of New York City with their organization. He will assume the duties of Vice-President.

For the past fifteen years Mr. Combier has had executive experience in charge of sales, manufacturing, merchandising and advertising. His most recent connection was as "Assistant to the President" of divisions of Servel, Incorporated; "Electrolux" Gas Refrigerator, Servel Electric Refrigerator, Hercules Truck Bodies and Hercules Gasoline Engines.

Mr. Combier was with the Hotpoint Electric Heating Company in the early days of that company for six years up to the formation of the Edison Electric Appliance Co.

Laiz-Flat Electric Banding

Laiz-Flat Electric Banding as the name implies is a flat wire that can be laid or fastened anywhere—two wires enclosed in a leather-like covering of tannish brown. Conductors are approximately ½ inch apart and the



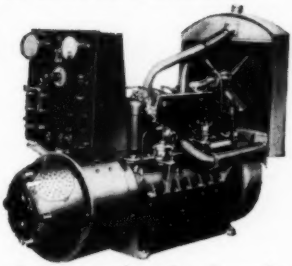
Showing Construction and Relative Size of Laiz-Flat

width over all is ¾ inch. This banding is employed for use on wall or baseboard, as a ground or aerial, on radio in motor car; it has many other uses in the home, store, shop, office and factory. The William Herst Company of Chicago, Illinois, are making Laiz-Flat Electric Banding as a complete unit in four lengths, also merchandising it by the foot. The illustration herewith indicates the relative size as well as construction of Laiz-Flat.

Robert Jones, of Pine Bluff, Arkansas, can stand on his thumbs, on Indian clubs.

MULTIPLE CYLINDERS

for Unequalled Smoothness



Every Universal Electric Plant, whether it be one of the little 1½ KW models or a husky 25 KVA job, is powered with either a four or a six cylinder motor. That's the first big step taken by Universal to assure smooth performance.

And here are a few more of the guarantees of smoothness that you'll find on every Universal Electric Plant: all revolving parts are dynamically balanced; all reciprocating parts are weighed and matched; all generators are wound to co-ordinate with engines; all plants are engineered to harmonize and function as units.

Send for our new catalogue describing the complete series of Universal Marine and Standard Type Electric Plants.

ELECTRIC PLANTS

Flexifour Series:

D. C., 1½, 2, 3, 4, 5 KW sizes, 32, 110 and 220 volt service.

A. C., 2 and 3 KVA sizes, 60 cycle, single or three phase, 110 or 220 volt service.

Super-Four Series:

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To get these profitable results feed must not only be fed plentifully but economically. Nothing plays a more important part in the elimination of waste in feeding than the feed grinder. It doesn't make any difference whether ten head of stock are fed or ten hundred; it pays handsomely to grind the feed before feeding.

Feeding whole grain or roughage is costly, even when feeds are cheap—because it means that, out of every *hundred bushels* fed, *twenty* to *twenty-five bushels* are *thrown away—an utter waste.* In the case of small, hard grains, such as kaffir corn or milo maize, the percentage of waste will run even higher than this. Or if the animal has poor teeth or a sore mouth the costly waste of whole grain feeding is even more startling because a greater percentage of the whole feed will pass through the tract undigested—a total loss of nourishment to the animal—a loss of grain to the farmer.

Grinding will eliminate this waste because ground feed is more easily assimilated. Every bushel bed is a bushel of nourishment. Every bushel of nourishment means money, and when market conditions warrant it, grinding will make it possible to feed hard and more nutritious grains—wheat for instance—instead of corn—and in this way the grower can dispose of his grain more profitably than it could be marketed through the elevator.

Home grinding is profitable. It pays to grind both grains and roughages—ground feed "goes farther" than unground feed. Ground feed is more easily digested, hence saves the energy of animals which it costs feed to produce. It cuts the feeding costs sometimes as much as 20 per cent, which is equivalent to feeding every fifth animal *FREE.* It shortens the feeding period, hence lessens the labor cost in fitting stock for market and makes it possible to fit more lots per year for market. Frequent turnover is profitable on the farm as well as in the store. By grinding everything that is used for feed, much waste is eliminated—more is realized from crops grown and the cost of feeding is greatly reduced. This is simply another way of saying that profits are increased from both.

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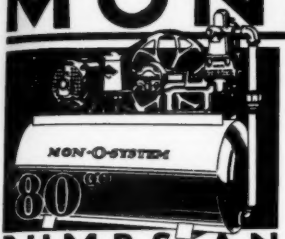

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